IN THE DRAWINGS:

The attached drawings include changes to FIGs. 1 and 2, wherein the legend ---Prior Art-- is added. The sheets containing FIGs. 1 and 2 replace the original sheets showing FIGs. 1 and 2.

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 7 and 25 have been amended, and claims 29-38 have been withdrawn. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-28 are under consideration. Claims 29-38 have been withdrawn. Reconsideration is respectfully requested.

WITHDRAWN CLAIMS:

Since the Examiner has not agreed to examine Group III together with the combination of Groups I and II, claims 1-28 are elected, and the claims of Group III (claims 29-38) are withdrawn.

CORRECTIONS TO THE DRAWINGS:

FIGs. 1 and 2 should have the legend "Prior Art" in accordance with paragraph 35, page 7, of the Brief Description of the Drawings, which recites that the magnetron shown in FIGs. 1 and 2 is a conventional magnetron:

> "FIG. 1 is a longitudinal cross section of a conventional magnetron;
>
> FIG. 2 is a cutaway perspective view of the magnetron of FIG. 1."

Corrections to FIGs. 1 and 2 are submitted herein and replacement figures have been submitted herewith. Applicants apologize for the errors.

REJECTION UNDER 35 U.S.C. §102:

In the Office Action, at pages 3-10, claims 1-13 and 17-22 were rejected under 35 U.S.C. §102(b) as being anticipated by Tsuzurahara (USPN 4,426,601; hereafter, Tsuzurahara). This rejection is traversed and reconsideration is requested.

It is respectfully submitted that, because FIGs. 1 and 2 were inadvertently not labelled as ---Prior Art---, there may be a misunderstanding about the present invention. FIGs. 1 and 2 have been amended to add the legend ---Prior Art---.

Claim 7 has been amended to recite more clearly that at least one permanent magnet is located beside the anode.

Thus, it is respectfully submitted that the present claimed invention (see independent

claims 1, 9, 12, 20 and amended independent claim 7) is different from Tsuzurahara in that, in the present claimed invention, there is at least one permanent magnet provided beside the anode, in contrast to the conventional magnetron, in which the permanent magnets are provided above and below the anode in consideration of the uniformity and symmetry of magnetic flux across the activating space of the magnetron, so that, in the conventional magnetron, the height and volume of the magnetron and the lengths of parts (such as the center lead, the side lead, the antenna, the upper and lower shield cups and ceramic (not shown)), which are made of expensive materials, are increased, thus increasing the weight and manufacturing cost of the magnetron (see paragraph 6 of the specification).

Also, in the conventional magnetron, the permanent magnets come in tight contact with the anode heated by the absorption of thermions to suppress an increase in the volume of the magnetron. Hence, the demagnetization of the permanent magnets is caused by the heating of the permanent magnets, and the size of the magnetron is increased in consideration of the decrease of the oscillation efficiency, thus reducing the oscillation efficiency of the magnetron and increasing the weight and manufacturing cost of the magnetron, respectively. In contrast, in the present invention, the placement of the permanent magnet(s) beside the anode reduces the demagnetization of the permanent magnet and the height of the magnetron, in comparison with the conventional magnetron placement of the permanent magnet(s) above and below the anode (see paragraph 7 of the specification).

Thus, it is respectfully submitted that independent claims 1, 9, 12, and 20, as well as amended independent claim 7, are not anticipated under 35 U.S.C. §102(b) by Tsuzurahara (USPN 4,426,601). Since claims 2-6, 8, 10-11, 13, 17-19, 21 and 22 depend from independent claims 1, 7, 9, 12 and 20, respectively, claims 2-6, 8, 10-11, 13, 17-19, 21 and 22 are submitted not to be anticipated under 35 U.S.C. §102(b) by Tsuzurahara (USPN 4,426,601) for at least the reasons that claims 1, 7, 9, 12 and 20 are submitted not to be anticipated under 35 U.S.C. §102(b) by Tsuzurahara (USPN 4,426,601).

REJECTION UNDER 35 U.S.C. §103:

A. In the Office Action, at pages 10-11, claims 14-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsuzurahara (USPN 4,426,601; hereafter, Tsuzurahara). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

As noted above, in contrast to the invention of Tsuzurahara , which provides permanent magnets above and below the anode, claim 12 of the present invention provides "at least one

permanent magnet provided beside the anode," thus reducing the demagnetization of the permanent magnet in comparison with the conventional magnetron placement of the permanent magnet(s) above and below the anode. Since claims 14-16 depend from claim 12, claims 14-16 incorporate this difference from Tsuzurahara, and are submitted to be patentable over Tsuzurahara (USPN 4,426,601) under 35 U.S.C. §103(a).

B. In the Office Action, at page 11, claims 23-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsuzurahara (USPN 4,426,601; hereafter, Tsuzurahara) in view of Seong (USPN 5,541,391; hereafter, Seong). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

As noted above, it is submitted that, in contrast to the invention of Tsuzurahara, which provides permanent magnets above and below the anode, claims 23, 24, 25, 26, 27 and 28 of the present invention provide at least one permanent magnet beside the anode, thus reducing the demagnetization of the permanent magnet in comparison with the conventional magnetron placement of the permanent magnet(s) above and below the anode.

As shown in FIG. 10 of Seong, the permanent magnets 450a and 450b are located above the anode 490.

Claim 25 has been amended to recite that the at last one permanent magnet is located beside the anode.

Thus, neither Tsuzurahara nor Seong recites positioning at least one permanent magnet beside the anode, as is recited in claims 23, 24, 25, 26, 27 and 28 of the present invention. Hence, claims 23, 24, 25, 26, 27 and 28 of the present invention are submitted to be allowable under 35 U.S.C. §103(a) over Tsuzurahara (USPN 4,426,601) in view of Seong (USPN 5,541,391). Since claim 24 depends from claim 23, claim 24 is submitted to be allowable under 35 U.S.C. §103(a) over Tsuzurahara (USPN 4,426,601) in view of Seong (USPN 5,541,391) for at least the reasons that claim 23 is submitted to be allowable under 35 U.S.C. §103(a) over Tsuzurahara (USPN 4,426,601) in view of Seong (USPN 5,541,391).

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for

allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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